

ID 5

Electronic Information Disclosure Statement



#6
IDS
J. McMillan
9/29/02

SIDEWALLS AS SEMICONDUCTOR ETCH STOP AND DIFFUSION BARRIER

Application:



09/982855

Confirmation:

7689

Applicant(s):

Richard Metzler /

Docket Number:

005802.P018X

Group Art Unit:

Examiner:

Huynh, Yennhu B.

search string:

(4403396 or 4508579 or 5081509 or 5340757 or 5357131).pn.

RECEIVED
SEP 16 2002
TECHNOLOGY CENTER 2800

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

| init | Citation No. | Patent Number | Date | Bar Code | Patentee | Class | Subclass |
|------|-----------------|---------------|------------|----------|-----------------|-------|----------|
| mt | P01 | 4403396 | 1983-09-13 | | Stein | | |
| mt | P02 | 4508579 | 1985-04-02 | | Goth, et al. | | |
| mt | P03 | 5081509 | 1992-01-14 | | Kozaka, et al. | | |
| mt | P04 | 5340757 | 1994-08-23 | | Chantre, et al. | | |
| mt | P05 | 5357131 | 1994-10-18 | | Sunami, et al. | | |


Remarks

(Remarks are not for responding to an office action.)

Applicants, in accordance with their duty of disclosure under 37 CFR §1.56 and in accordance with

37 CFR §1.97(b)(3), hereby submit this Electronic Information Disclosure Statement citing U.S. Patent Documents for consideration by the Examiner. Pursuant to 37 CFR 1.97, the submission of this Electronic Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed as an admission that the information cited in this statement is material to patentability. This Information Disclosure Statement is being filed prior to a substantive examination of the claims. Pursuant to 37 CFR §1.97(b), no fee should be required for the filing of this Information Disclosure Statement. In the event it is determined that a fee is due, please charge the fee to Deposit Account 02-2666. Applicants respectfully requests that the cited documents be considered and that the form be initialed by the Examiner to indicate such consideration and a copy thereof be returned to Applicants' attorney of record.

Signature

| Examiner Name | Date |
|--|----------|
|  | 12/10/03 |

MAR 15 2002

PTO/SB/08A (08-00)

Approved for release through 10/31/2002. OMB 0651-0031
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(use as many sheets as necessary)**Complete if Known**

| | | | | | |
|-------|---|----|---|--------------------|------------|
| Sheet | 1 | of | 6 | Application Number | 09/982,855 |
|-------|---|----|---|--------------------|------------|

| | |
|------------------------|--------------------|
| Filing Date | October 22, 2001 |
| First Named Inventor | Richard A. Metzler |
| Group Art Unit | 2814 |
| Examiner Name | Unassigned |
| Attorney Docket Number | 5802P018X |

U.S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|----------------------|-----------------------------------|---|--|---|
| | | Number | Kind Code ² (if known) | | | |
| | AA | 2,444,255 | | Hewlett | 06-27-1948 | |
| | AB | 3,295,030 | | Allison | 12-27-1966 | |
| | AC | 3,407,343 | | Fang | 10-22-1968 | |
| | AD | 3,427,708 | | Schütze et al. | 02-18-1969 | |
| | AE | 3,458,798 | | Fang et al. | 07-29-1969 | |
| | AF | 3,566,215 | | Heywang | 02-23-1971 | |
| | AG | 3,586,925 | | Collard | 06-22-1971 | |
| | AH | 3,617,824 | | Shinoda et al. | 11-02-1971 | |
| | AI | 3,619,737 | | Chiu | 11-09-1971 | |
| | AJ | 3,749,987 | | Anantha | 07-31-1973 | |
| | AK | 3,769,109 | | MacRae et al. | 10-30-1973 | |
| | AL | 3,864,819 | | Ying | 02-11-1975 | |
| | AM | 3,935,586 | | Landheer et al. | 01-27-1976 | |
| | AN | 3,943,547 | | Nagano et al. | 03-09-1976 | |
| | AO | 3,988,765 | | Pikor | 10-26-1976 | |
| | AP | 4,019,248 | | Black | 04-26-1977 | |
| | AQ | 4,045,250 | | Dingwall | 08-30-1977 | |
| | AR | 4,099,260 | | Lynes et al. | 07-04-1978 | |
| | AS | 4,104,086 | | Bondur et al. | 08-01-1978 | |
| | AT | 4,138,280 | | Rodov | 02-06-1979 | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | 1 ⁶ |
|--------------------|-----------------------|-------------------------|---------------------|-----------------------------------|---|--|---|----------------|
| | | Office ³ | Number ⁴ | Kind Code ² (if known) | | | | |
| | AU | DE | 32 19 888 | A1 | Deutsche ITT Ind. | 01-12-1983 | | |
| | AV | JP | 61-156882 | | Toshiba Corp | 07-16-1986 | | |
| | AW | JP | 63-054762 | | Hitachi Ltd. | 03-09-1988 | | |
| | AX | JP | 63-205927 | | Matsushita Electronics | 08-25-1988 | | |
| | AY | JP | 5-109883 | | Nippondenso Co. Ltd. | 04-30-1993 | | |
| | AZ | DE | 196 05 633 | A1 | Samsung Electronics | 12-12-1996 | | |
| | BA | WO | 98/33218 | | Luminous Intent, Inc. | 07-30-1998 | | |

| | | | | |
|--------------------|--|-----------------|----------|--|
| Examiner Signature | | Date Considered | 12/10/03 | COPY OF PAPERS ORIGINALLY FILED |
|--------------------|--|-----------------|----------|--|

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as attached on the document under WIPO Standard ST. 16 if possible.

⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

| | | | | | |
|--|---|----|---|--------------------------|--------------------|
| SUBSTITUTE Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i> | | | | Complete if Known | |
| | | | | Application Number | 09/982,855 |
| | | | | Filing Date | October 22, 2001 |
| | | | | First Named Inventor | Richard A. Metzler |
| | | | | Group Art Unit | 2814 |
| | | | | Examiner Name | Unassigned |
| Sheet | 2 | of | 6 | Attorney Docket Number | 5802P018X |

U.S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|----------------------|--------------------------------------|---|---|---|
| | | Number | Kind Code ² (if known) | | | |
| YJP | BB | 4,139,880 | | Ulmer et al. | 02-13-1979 | |
| | BC | 4,139,935 | | Bertin et al. | 02-20-1979 | |
| | BD | 4,140,560 | | Rodov | 02-20-1979 | |
| | BE | 4,153,904 | | Tasch, Jr. et al. | 05-08-1979 | |
| | BF | 4,246,502 | | Kubinec | 01-20-1981 | |
| | BG | 4,318,751 | | Hornig | 03-09-1982 | |
| | BH | 4,330,384 | | Okudaira et al. | 05-18-1982 | |
| | BI | 4,340,900 | | Goronkin | 07-20-1982 | |
| | BJ | 4,372,034 | | Bohr | 02-08-1983 | |
| | BK | 4,423,456 | | Zaidenweber | 12-27-1983 | |
| WJH | BL | 4,533,988 | | Daly et al. | 08-06-1985 | |
| | BM | 4,534,826 | | Goth et al. | 08-13-1985 | |
| | BN | 4,579,626 | | Wallace | 04-01-1986 | |
| | BO | 4,586,075 | | Schwenk et al. | 04-29-1986 | |
| | BP | 4,638,551 | | Einthoven | 01-27-1987 | |
| | BQ | 4,666,556 | | Fulton et al. | 05-19-1987 | |
| | BR | 4,672,736 | | Westermeyer | 06-16-1987 | |
| | BS | 4,672,738 | | Stengl et al. | 06-16-1987 | |
| | BT | 4,680,601 | | Mitlehner et al. | 07-14-1987 | |
| | BU | 4,739,386 | | Tanizawa | 04-19-1988 | |

FOREIGN PATENT DOCUMENTS

[illegible]

| | | | | |
|-----------------------|---|--------------------|----------|------------------|
| Examiner Signature |  | Date Considered | 12/10/03 | ORIGINALLY FILED |
|-----------------------|---|--------------------|----------|------------------|

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as attached on the document under WIPO Standard ST. 16 if possible.

⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Substitute for Form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(use as many sheets as necessary)

Complete if Known

| | | | | | |
|---|---|----|---|--------------------------|--------------------|
| Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i> | | | | Complete if Known | |
| | | | | Application Number | 09/982,855 |
| | | | | Filing Date | October 22, 2001 |
| | | | | First Named Inventor | Richard A. Metzler |
| | | | | Group Art Unit | 2814 |
| | | | | Examiner Name | Unassigned |
| Sheet | 3 | of | 6 | Attorney Docket Number | 5802P018X |

U.S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|----------------------|--------------------------------------|---|---|---|
| | | Number | Kind Code ² (if known) | | | |
| EJH | BV | 4,742,377 | | Einthoven | 05-03-1988 | |
| | BW | 4,745,395 | | Robinson | 05-17-1988 | |
| | BX | 4,757,031 | | Kuhnert et al. | 07-12-1988 | |
| | BY | 4,774,560 | | Coe | 09-27-1988 | |
| | BZ | 4,777,580 | | Bingham | 10-11-1988 | |
| | CA | 4,808,542 | | Reichert et al. | 02-28-1989 | |
| | CB | 4,811,065 | | Cogan | 03-07-1989 | |
| | CC | 4,822,757 | | Sadamori | 04-18-1989 | |
| | CD | 4,857,985 | | Miller | 08-15-1989 | |
| | CE | 4,875,151 | | Ellsworth et al. | 10-17-1989 | |
| | CF | 4,900,692 | | Robinson | 02-13-1990 | |
| | CG | 4,903,189 | | Ngo et al. | 02-20-1990 | |
| | CH | 4,927,772 | | Arthur et al. | 05-22-1990 | |
| | CI | 4,974,050 | | Fuchs | 11-27-1990 | |
| | CJ | 5,038,266 | | Callen et al. | 08-06-1991 | |
| EJH | CK | 5,047,355 | | Huber et al. | 09-10-1991 | |
| | CL | 5,093,693 | | Abbas et al. | 03-03-1992 | |
| | CM | 5,101,254 | | Hamana | 03-31-1992 | |
| | CN | 5,109,256 | | De Long | 04-28-1992 | |
| | CO | 5,132,749 | | Nishibayashi et al. | 07-21-1992 | |

FOREIGN PATENT DOCUMENTS

[illegible]

| | | | |
|-----------------------|---|--------------------|---|
| Examiner Signature |  | Date Considered |  |
|-----------------------|---|--------------------|---|

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as attached on the document under WIPO Standard ST. 16 if possible.

⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Substitute for Form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(use as many sheets as necessary)

Complete if Known

| | |
|------------------------|--------------------|
| Application Number | 09/982,855 |
| Filing Date | October 22, 2001 |
| First Named Inventor | Richard A. Metzler |
| Group Art Unit | 2814 |
| Examiner Name | Unassigned |
| Attorney Docket Number | 5802P018X |

| | | | |
|-------|---|----|---|
| Sheet | 5 | of | 6 |
|-------|---|----|---|

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

**COPY OF PAPERS
ORIGINALLY FILED**

| | | | |
|-----------------------|---|--------------------|---------|
| Examiner Signature |  | Date Considered | 12/1/03 |
|-----------------------|---|--------------------|---------|

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as attached on the document under WIPO Standard ST. 16 if possible.

⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box → ☐

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

| | | | | | | |
|--|--|---|----|--------------------------|------------------------|--------------------|
| Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT | | | | Complete if Known | | |
| | | | | Application Number | 09/982,855 | |
| Sheet | | 1 | of | 1 | Filing Date | October 22, 2001 |
| | | | | | First Named Inventor | Richard A. Metzler |
| | | | | | Group Art Unit | 2813 |
| | | | | | Examiner Name | Yennhu B. Huynh |
| | | | | | Attorney Docket Number | 5802P018X |

| OTHER ART - NON PATENT LITERATURE DOCUMENTS | | | |
|---|-----------------------|---|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| YB | | K. JANO, M. MITSUI, J. MORITA, M. KASUGA & A. SHIMIZU; Application of a Junction Field Effect Transistor Structure to a Low Loss Diode; Jpn. j. Appl. Phys. Vol. 36, pp. 1487-1493; 1997 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | |
|--------------------|--|-----------------|----------|
| Examiner Signature | | Date Considered | 12/10/03 |
|--------------------|--|-----------------|----------|

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.